



## First Meeting for 2021

### Sunday 14<sup>th</sup> February

Belviour Guides Hall, 6 Silva Drive West Wodonga

→ NO MEETING IN JANUARY ←



Members enjoying the Christmas Luncheon  
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# NEVARC 2020 Christmas Party

Between Covid-19 rules and cross border checkpoints, 2020 has been a very quiet time for the members at NEVARC. But we could never end the year without our famous XMAS Party and 2020 saw a great one. With over a dozen members and partners at the table we all enjoyed a magnificent lunch at the Birralelee Tavern in Wodonga.



Even Brenton VK3CM turned up and brought along 2 new members as well. Frank VK2BFC and his wife Rose were there with Frank presenting Brenton and Matt with hand-carved plaques for their shack walls, Peter VK3PTE and his wife Karen sat at the head of the table alongside Matt VK3VS and his wife Amy AND their 2 beautiful new twins.



There was much discussion about what 2021 may bring with all the covid-19 regulations putting an end to classes and exams during 2020. Matt has decided to put together the COVID safe plan for the clubrooms and we will be having Foundation call classes and exams in 2021.

While it has been a very quiet year as far as meetings, the work behind the scenes has indeed been ongoing.



Matt VK3VS and Gary VK2VU have both VK3RWO and VK2RWD repeaters running like clockwork and plans to install VK2RWO in Albury are well underway with the repeater site secured by Matt. Additions to the repeater network are ongoing with 6m and 70cm repeaters almost ready for commissioning along with a 2meter DMR repeater which may well be on the new VK2RWO site.

We will be having meetings in 2021 so watch out for club e-mail with our 2021 calendar.

As for me, I will be again active on both HF and VHF with the re-installation of my HF antennas and some new VHF/UHF gear. I even bit the bullet and bought myself a Yaesu FT-DX3000 for Xmas. So watch out for more news as it happens, and in the meantime STAY LUCKY.

*~Frank (Education Officer) VK2BFC*





## **Decision on possible use of the 5351.5–5366.5 kHz band by the amateur service**

ACMA has decided not to support amateur use in the band.

### **Outcome**

The ACMA has reviewed all submissions to this consultation.

When weighing up spectrum use, the ACMA considers the objects of the Radiocommunications Act 1992.

This includes:

- \* Maximising public benefit from the use of the radio spectrum.
  - \* Making provision for spectrum use by Australian defence or national security agencies.
- This was of high importance in this matter.

In balancing defence's existing use of the 5351.5–5366.5 kHz band against the impacts of introducing use by the amateur service, the ACMA has decided not to support amateur use in the band.

The ACMA recognises the high level of interest shown by the amateur community in adding this band, and understands there will be disappointment.

However, we are confident the decision is appropriate and consistent with the objects of the Radiocommunications Act.

In particular, this includes supporting defence and national interest objectives.

### **The issue**

The amateur service primarily facilitates hobby Radiocommunications and technical experimentation. We support the amateur service through planning arrangements that recognise the need for amateur radio operators to access frequency bands, while balancing other demands for spectrum.

In Australia, the high frequency (HF) band 5351.5–5366.5 kHz (15 kHz) was allocated to the amateur service on a secondary basis in 2017. However, there are unresolved sharing issues in the band, which have prevented its use. The band is used by 526 other licensed services, mostly land mobile and aeronautical services and also Defence.

~ACMA

## **The new laws of robotics — building on Asimov's science fiction legacy in the age of AI**

Way back in the early 1940s — long before smart phones, Siri and semi-autonomous weapons — the late great sci-fi writer Isaac Asimov drew-up a set of principles for the development of advanced robotic systems. Asimov was essentially an optimist, but he realised that future AI devices, and their designers, might need a little help keeping on the straight and narrow.

Hence his famous Three Laws, which have influence in science and technology circles to this day.

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

Now, almost 80 years later, legal academic and artificial intelligence expert Frank Pasquale has added four additional principles. What did Asimov get wrong?

Professor Pasquale says while Asimov's ideas were well founded, they assumed a certain technological trajectory that no longer holds — innovations are not always for the good of humanity.

"Whereas Asimov is talking about how we have robots help people and not harm them, I'm talking about how we democratise the direction of technology," he says.

And he draws an important distinction between AI and what he terms IA — intelligence augmentation.

"The artificial intelligence goal is often to replace human beings, to create, for example, a robot doctor or a robot teacher. The intelligence augmentation goal is to help human beings."

So, what are the new laws and why are they necessary?

Professor Pasquale says jobs that involve judgement and deliberation over choices should be kept for humans, Professor Pasquale says the stakes are high.

The optimal mix of robotic and human interaction is far too important to be determined only by corporations and engineers, he argues.

"If we go for an artificial intelligence vision of replacement, that's going to create a jobless future in many areas," he says.

"Whereas if we emphasise intelligence augmentation, that should actually increase both productivity and the value of labour."

New law 1: AI should complement professionals, not replace them

Professor Pasquale says some areas of the economy, particularly in manufacturing, will continue to see rapid automation, but jobs that involve judgement and deliberation over choices should be kept for humans.

"In areas like teaching, medicine, a lot of professional fields, you want to have people able to explain options to their clients, patients and students, rather than having some large tech firm just assume what is best and automate the result."

But he emphasises the need to recognise and help those made redundant by technology.

"Part of making it easier is to invest in people and to emphasise that everyone can have some role in society that involves work with judgement, with their expertise being valuable to that work."

New law 2: Robotic systems and AI should not counterfeit humanity

Devices should not be developed to mimic human emotions.

Professor Pasquale says while personal assistants like Siri might seem benign, they risk deceiving people and manipulating our feelings.

The future of human-computer interaction is going to involve tough judgement calls about how seamless personal interactions with robots should be, and whether some friction should be involved to create a level of distance.

Professor Pasquale also argues that we need to be more disciplined in the language we use around robotics.

"I resist even novelists or fiction writers calling the robot 'he' or 'she' like a person. I think that 'it' should always be the pronoun because I think that 'it' sort of denotes the fact that this is a machine and it's not a person."

New law 3: Robotic systems and AI should not intensify zero-sum arms races

The unchecked development of smart robotic weapons systems risks spiralling out of control, Professor Pasquale warns.

And given our track-record with other military spending, there's every reason to suggest an arms race will develop over the development and deployment of AI weaponry.

"Very early on I think we have to say how we get societies to recognise that this is destructive, it's not providing real human services, it's just investing in the history of destruction," Professor Pasquale says.

He also warns against technology companies such as Google and Facebook engaging in an "arms race for attention" both among advertisers and platform users.

Hyper-competitiveness, he warns, is the road to "technological dominance and monopolisation".

New law 4: Robotic systems and AI must always indicate the identity of their creator(s), controller(s) and owner(s)

Greater levels of transparency are needed to increase accountability and deter inappropriate and illegal activity by both the owners and developers of technology.

Just as cars have license plates, so too should robots, says Professor Pasquale.

He believes no robotic system should ever be made fully autonomous. The risks, he says, are too high.

"It's important because we know how to punish people, we don't know how to punish robots or AI, and that's really important to the future of legal enforcement."

But won't that put a brake on innovation?

The short answer is yes.

Professor Pasquale acknowledges the widespread application of his new laws would stall the development of certain technologies, but that, he says, would be for the public good.

"We've seen so many fields where technological advances have led to very troubling and harmful consequences like global warming. We've got to get ahead of these things," he says.

"We can't just look at something like global warming and say, well, we'll just get a technological fix out of it.

"We have to think very deeply about directing innovation, and innovation itself can't just be a watchword to stop regulation."

*~Internet*

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NEVARC News

The club magazine

All it needs is YOU

Send stories of your radio news to the editor

What have you been up to in these strange days of COVID?

[magazine@nevarc.org.au](mailto:magazine@nevarc.org.au)

# Ross Hull Memorial VHF/UHF Contest

January 1<sup>st</sup> – 31<sup>st</sup>

## Contest Introduction

The Ross Hull Contest is a DX contest, with points awarded for distances worked. There are also band multipliers to encourage activity on the higher bands.

## Aim of the Contest

The aim of the contest is to encourage and to reward achievement in working the greatest possible distances on the VHF, UHF and microwave bands.

<https://www.wia.org.au/members/contests/rosshull/>

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## Summer VHF – UHF Field Day

The Summer Field Day has been held in January each year since 1989

January 16<sup>th</sup> – 17<sup>th</sup>

<https://www.wia.org.au/members/contests/vhfuhf/>

The VHF-UHF Field Days provide VHF-UHF operators with the opportunity to "head for the hills" and see how far and how many they can work. The Field Days have separate sections for single and multiple operator stations. The duration of the Field Day is 24 hours, but there are also 8 hour sections for operators who may not be able to camp overnight. Most club stations prefer to operate for the full 24 hours.

The Field Days also generate plenty of activity from home stations, so there is also a separate Home Station section. All contacts must be simplex: contacts through repeaters or satellites are not allowed. There is plenty of FM activity, but one feature of the Field Days is a high level of SSB activity.

It is possible to do very well with only modest antennas if you pick a good hilltop. Another option, if your station is easily transportable, is to operate from more than one location during the contest period.

## Aim of the Contest

The overriding aim is to get away for the weekend and have fun!  
But next after that, the aims are:

- to encourage more activity on VHF and microwave bands;
- to encourage people to work greater distances than usual by operating portable, and
- to provide opportunities for people to activate or work into new grid squares.

# USB TV TUNERs -- Now Work on Windows 10

Thanks to Gary, K7HYB, of the West Washington ATV Society, in Seattle, WA, he has now solved the problem of how to make the USB TV Tuner dongles work with Windows 10. The dongles we are referring to use the RTL2832U & R820T2 chips. The internet is overflowing with complaints from many disgruntled users of these dongles that used to work with Windows XP & Windows 7, but will now not work with Windows 10. The major reason for the failure is Windows 10's habit of automatically searching the internet for drivers and loading an old, obsolete driver from 2009. What Gary found was the required driver is called REALTEK 2832U Device Version 64.1.521.2012 dated 21 May 2012.

He found it on a German web site [www.ukwttv.de](http://www.ukwttv.de)

Go to this part of the site:

<https://www.ukwttv.de/cms/downloads-aside/281-dab-player-von-andreas-gsinn.html>

Scroll down to find Treiber2.zip and down-load it. It contains the correct driver. I then with further searching on the internet found a good set of instructions on how to install the correct driver, plus tell Windows 10 to use it and not automatically keep reloading the wrong driver. I am rewriting some of it below as I found useful.

Re-installing correct Realtek drivers on Win10 for RTL-2832U/R820T2 Dongle

1. First, download the driver ( i.e. Treiber2.zip and unzip it )
2. Connect your USB TV Tuner dongle to a USB port on your computer.
3. Then disconnect your computer from the internet.
4. Next, right click on the Windows start button and click Device Manager.

In Device Manager, Under Sound Video & Game Controllers, Right click the "Realtek 2832U device" and uninstall it, be sure to put the tick in the box to delete driver software. If you don't find a driver there, then just close out the Device Manager.

5. Now you can install the correct driver, version 64.1.521.2012 dated 21-May-12

The wrong not working driver installed by Windows is dated 2009 or 2010.

When you unzipped Treiber2, it created a file folder called 86.001.0521.2012. Open this folder and click on the "setup" application to start the installation. The driver will be stored in: C:\Program Files (x86)\Realtek\REALTEK DTV USB DEVICE

6. You can check the installed driver version by right clicking on "REALTEK 2832U Device" in Device Manager and clicking Properties and then Driver.



7. Now it is time to try it out and see if your dongle really works. For this I used the program VLC. See below for a separate description on how to use VLC with the TV tuner.
8. Assuming you got the dongle working, then re-connect your computer to the internet. After a few minutes windows will update the working 2012 driver with the not working 2009 driver again.
9. To reinstall the 2012 driver and stop this happening again: In Device Manager, Under Sound Video & Game Controllers, Right click the Realtek 2832U Device then click "Update Driver", Click "Browse My Computer for Driver Software", Click "Let me pick from a list of available drivers on my computer". This will now show a list with both the bad 2009 and the good 2012 drivers Click on the 5/21/2012 driver so it is highlighted. Then click on NEXT. This then reinstalls the correct driver. It also prevents Windows from replacing it automatically.

#### VLC:

One free program to run a USB TV Tuner dongle is VLC Media Player. It is a powerful media player program which will do much more than just run your dongle. It can be downloaded free from [www.videolan.org](http://www.videolan.org)

To check out the operation of your dongle, you need to first supply it with a good DVB-T RF signal. I used my Hi-Des HV-320E modulator hardwired to the antenna input on the dongle. Set at least 20dB of attenuation in the modulator (or use an external pad) to prevent overloading the dongle's tuner. I set my modulator to one of our normal ham DATV channels. It is best to then feed "live" video and audio into the modulator to verify performance. I used a pre-recorded DVD as my "live" A/V source.

1. Launch VLC
2. On the upper taskbar, click on "Media" - select "Open Capture Device"
3. On the Open Media menu, Capture Mode - select "TV-digital"
4. Device Selection - set Tuner card to "0", select Delivery System as DVB-T
5. For Options: enter the center frequency and bandwidth of the test signal you are using. For example, I used 423MHz, but it must be entered in kHz as 423000. It is best not to leave Bandwidth in the default Automatic, but to in fact chose the correct bandwidth. Choices are 1.712, 5, 6, 7, 8 or 10MHz.
6. Now click on "Play"
7. IF everything has been installed correctly, then you now should see your live video being received by the USB dongle. CONGRATULATIONS ! You have made it work. CAUTION: Both Gary, K7HYB, and Pete, WB2DVS, report that the USB dongle will

now only work as a digital TV tuner. It will no longer work as an SDR receiver for other applications, such as SDR-Sharp. If you want to still use these apps, you will need to go into your Windows 10 menu and select a different driver.

OBSERVATIONS on USE: I have tested the dongle with VLC under various digital parameters and it seems to work OK in all cases. I tried it with resolutions of 480i, 720P and 1080P and with QPSK, 16QAM & 64QAM. The max. bit rates ranged from 5.5MB (QPSK), to 11MB (16QAM) up to 17MB (64QAM). I also observed that if the RF signal drops out and then comes back on, VLC will not always reacquire the signal. To reacquire, one needs to first click on the "Stop Playback" button (black square), then click on the "Play" button (right facing triangle).!

*~73 de Jim, KH6HTV*

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## Read QTC Magazine

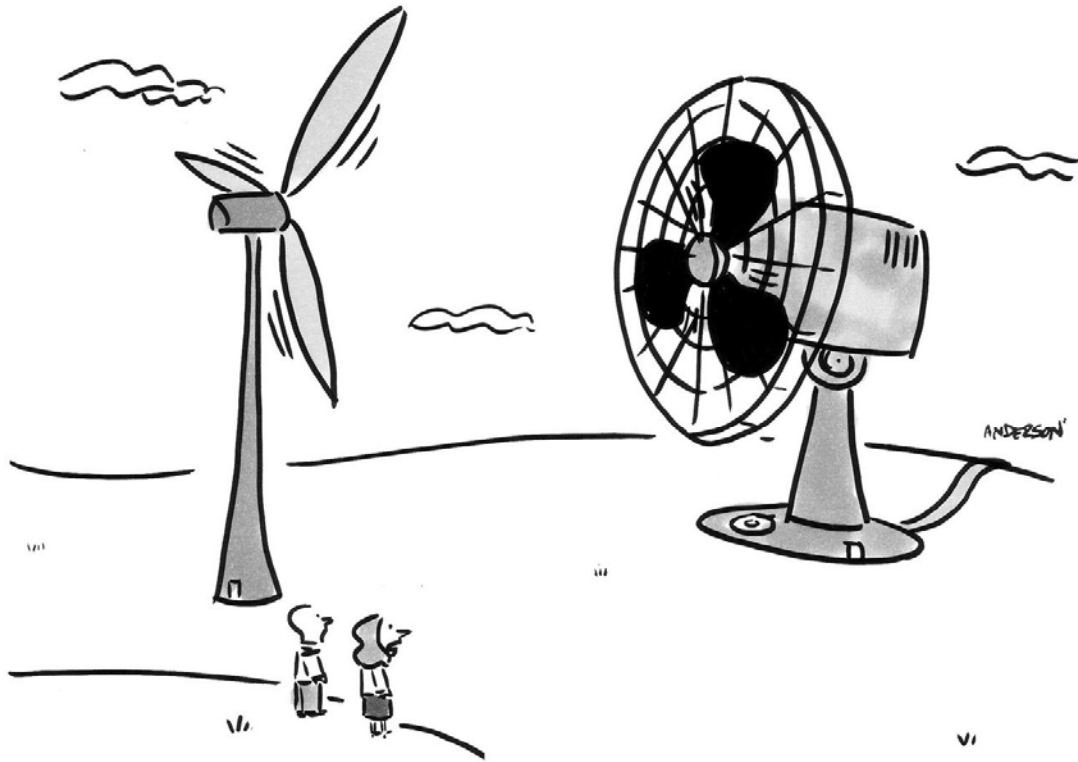
<https://www.qtcmag.com/>







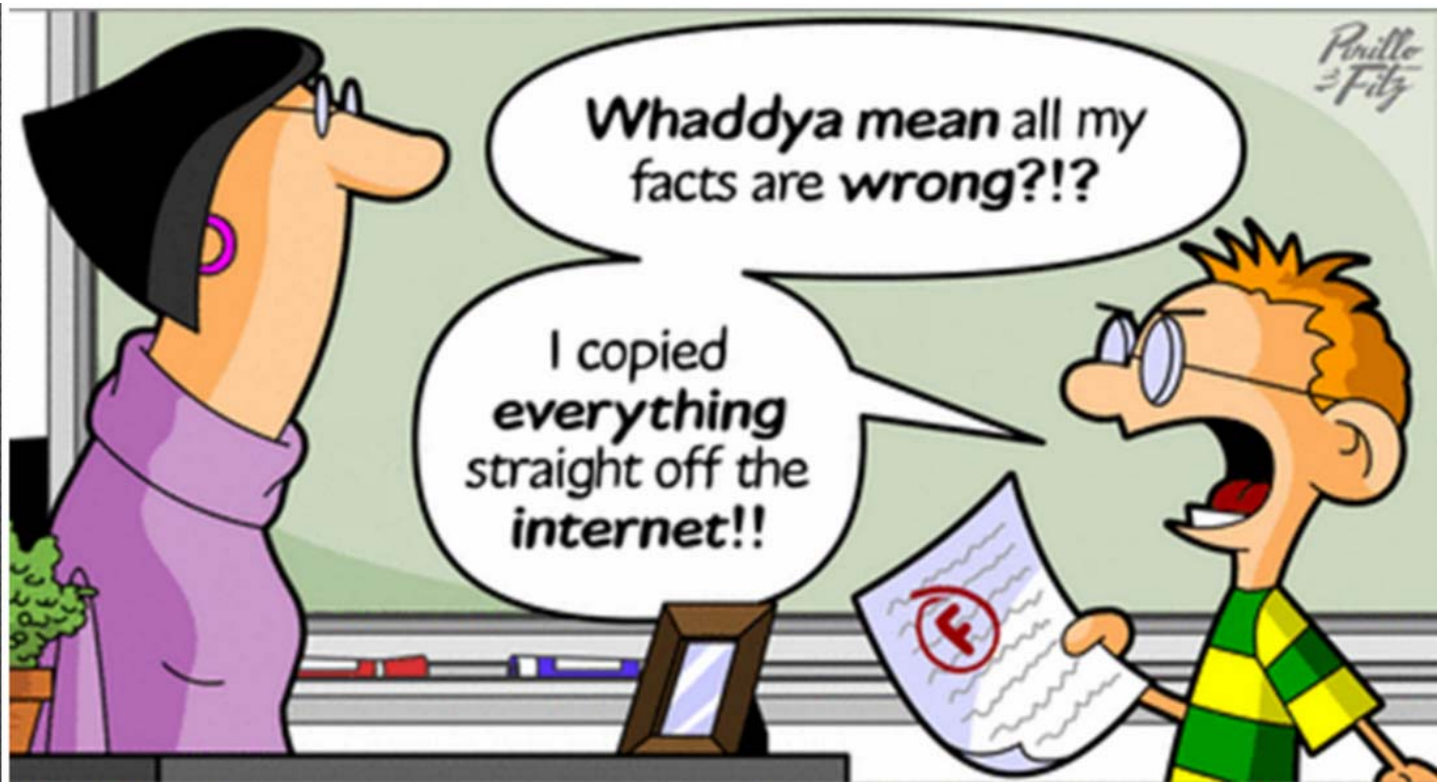




"I dunno, kind of defeats the purpose,  
doesn't it?"



"The hospital computer system has a virus.  
Ironical, isn't it?"



# NEVARC Nets



## 40M Net

Monday, Wednesday and Fridays  
10am Local time (East coast)

7.095 MHz LSB

Approximately + or – QRM

7.097 MHz has been used for a while now

Hosted by Ron VK3AHR

***“Australia Ham Radio 40 Meter Net”***

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## 80M Net

Wednesday 20:30 Local time

3.622 MHz LSB

Hosted by Ron VK3AHR

Using the club call VK3ANE

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## 2M Nets

Monday at 2000 local time on  
VK3RWO repeater

146.975 MHz

President, VK2VU, Gary  
Vice President, Tom VK3NXT  
Secretary, VK2FKLR, Kathleen  
Treasurer, Amy



## NEVARC CLUB PROFILE

### History

The North East Victoria Amateur Radio Club (NEVARC) formed in 2014.

As of the 7th August 2014, Incorporated, Registered Incorporation number A0061589C.

NEVARC is an affiliated club of the Wireless Institute of Australia and The Radio Amateur Society of Australia Inc.

### Meetings

Meetings details are on the club website, the Second Sunday of every month, check for latest scheduled details.

Meetings held at the Belvoir Guides Hall, 6 Silva Drive West Wodonga.

Meetings commence with a BBQ (with a donation tin for meat) at 12pm with meeting afterwards.

Members are encouraged to turn up a little earlier for clubroom maintenance.

Call in Via VK3RWO, 146.975, 123 Hz tone.

### VK3ANE NETS

#### HF

7.095 MHz Monday, Wednesday, Friday - 10am Local time      currently using 7097 MHz

3.622 MHz Wednesday - 8.30pm Local time

#### VHF

VK3RWO Repeater 146.975 MHz—Monday - 8pm Local time

All nets are hosted by Ron Hanel VK3AHR using the club callsign VK3ANE

### Benefits

To provide the opportunity for Amateur Radio Operators and Short Wave Listeners to enhance their hobby through interaction with other Amateur Radio Operators and Short Wave Listeners. Free technology and related presentations, sponsored construction activities, discounted (and sometimes free) equipment, network of likeminded radio and electronics enthusiasts. Excellent club facilities and environment, ample car parking.

**Website:**      [www.nevarc.org.au](http://www.nevarc.org.au)

**Postal:**

**NEVARC Secretary**

**PO Box 69**

**Facebook:**      [www.facebook.com/nevicARC/](http://www.facebook.com/nevicARC/)

**Wahgunyah Vic 3683**

All editors' comments and other opinions in submitted articles may not always represent the opinions of the committee or the members of NEVARC, but published in spirit, to promote interest and active discussion on club activities and the promotion of Amateur Radio.

Contributions to NEVARC News are always welcome from members.

Email attachments of Word™, Plain Text, Excel™, PDF™ and JPG are all acceptable.

You can post material to the Post Office Box address at the top of this page, or email [magazine@nevarc.org.au](mailto:magazine@nevarc.org.au)

Please include a stamped self-addressed envelope if you require your submission notes returned.

Email attachments not to exceed 5 Mb in file size. If you have more than 5 Mb, then send it split, in several emails to us.

Attachments of (or thought to be) executable code or virulently affected emails will not be opened.

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While we strive to be accurate, no responsibility taken for errors, omissions, or other perceived deficiencies, in respect of information contained in technical or other articles.

Any dates, times and locations given for upcoming events please check with a reliable source closer to the event.

This is particularly true for pre-planned outdoor activities affected by adverse weather etc.

The club website <http://nevarc.org.au> has current information on planned events and scheduled meeting dates.

You can get the WIA News sent to your inbox each week by simply clicking a link and entering your email address found at [www.wia.org.au](http://www.wia.org.au). The links for either text email or MP3 voice files are there as well as Podcasts and Twitter. This WIA service is FREE.